

Stakeholder Participation Panel

Workshop

September 29, 2003



Meeting Agenda

- Welcome/Introductions
- Study Overview
- Progress to Date
 - Public Questionnaire
 - Traffic and Travel Patterns
 - Cultural & Natural Resources
 - Transportation Implications
 - Feedback/Questions
- Breakout Sessions
 - Traffic Impact Study and Subarea Transportation Plan
 - Reporting Back/Discussions
- Next Steps
- Adjourn



Study Overview - Purpose

- **Develop transportation alternatives that eliminate or minimize adverse impacts of increased traffic volumes on Park and surrounding communities.**
- **Provide information and strategies to assist NPS, GDOT and surrounding communities to respond to anticipated future growth.**



Study Overview

Stakeholder Comments/Issues

- **Transportation & Mobility**
 - Walker County traffic patterns have changed since US 27 Relocation opening.
 - Signal improvements needed.
 - Altered traffic flow on Osborn and Wilder Roads.
 - US 27/McFarland intersection - numerous crashes initially.
 - Osburn intersection - high crash rate (dark at night).
 - Include City of Chickamauga as gateway community.
 - Need bicycle rental facility north of Park.



Study Overview

Stakeholder Comments/Issues

- **Resource Preservation**
 - Employ regional approach for solution.
 - Improve wayfinding between Park and community historic/cultural features.
 - Establish reasonable restrictions on Park roadways.
 - Other alternatives exist to travel around Park.
 - Protect Park.
 - Walker County is developing an overlay district plan.



Study Overview

Stakeholder Comments/Issues

- **Economic development**
 - Don't decrease traffic on LaFayette Road because of the negative impact on area businesses.
 - Develop commercial in a manner that balances historic issue.
- **Recreation**
 - Address the difference in Park visitors – recreation versus commemorative.



Goals, Objectives & Performance Measures

Goal – Traffic Impact Study – 1A

- To ensure that transportation system meets community's mobility needs.

Objectives

- To provide a safe transportation system.
- To promote the development of alternative modes and connections between modes.
- To improve north-south connectivity east of Park.

Performance Measures

- Traffic Volumes
- Level of Service
- Accident rates



Goals, Objectives & Performance Measures

Goal - Traffic Impact Study – 1B

- To increase the attraction of US 27 Relocation for commuters.

Objectives

- To ensure that Non-Park traffic uses other alternatives.
- To ensure that community transportation system accommodates existing/future needs and provides easy access to US 27 Relocation.

Performance Measures

- Traffic Volumes
- Level of Service
- Percent Split (% local and through traffic)



Goals, Objectives & Performance Measures

Goal – Subarea Transportation Study – 2A

- To minimize adverse impacts of traffic and transportation usage on the Park and its resources.

Objectives

- Reduce ‘Non-Park traffic’ on Park roads.
- To provide adequate and safe transportation facilities for Park users.
- To provide an exceptional visitor experience.

Performance Measures

- Traffic Volumes
- Percent Split (% local and through traffic)
- Accident Rate
- Level of Service
- Parking Utilization
- Visitor Feedback



Goals, Objectives & Performance Measures

Goal - Subarea Transportation Study – 2B

- To develop feasible transportation strategies that accommodate future growth.

Objectives

- To identify transportation alternatives that reflect Park's unique needs and preserve its historic resources.
- To identify land use development strategies that complement and protect the Park.

Performance Measures

- Traffic Volumes
- Number of Tourists
- Economic Value/Tourism
- Feasible implementation recommendations



Questionnaire Results

- Distributed to general public, SPP, and Environmental Justice community
- Obtained feedback on travel patterns, Park usage, transportation problem areas, suggestions on transportation and Park improvements
- 50 Questionnaires received (10- SPP, 10 – EJ, 30 -General Public)



Questionnaire Results

US 27 Relocation

- Use Road
 - Yes 78%
 - No 20%
- Saves Time
 - Yes 60%
 - No 26%
- Problem areas
 - Not convenient
 - Need signals
 - McFarland Gap Road access



Questionnaire Results

LaFayette Road through Park

- Trip purpose
 - Visit Park 36%
 - Travel to other destinations 57%
- Frequency of use
 - Frequently (> 5 times week) 22%
 - Occasionally (1-4 times week) 24%
 - Rarely 44%
 - Never 10%



Questionnaire Results

Transportation Issues - Community

- **Battlefield Parkway**
 - Signal timing
 - Traffic volumes
- **Difficult access to Hospital (McFarland Gap Rd)**
- **Intersection of Hwy 27 and SR 2 – wait times**



Questionnaire Results

Transportation Issues – Park

- Speeding traffic
- Speed limit is too low
- Conflicts due to traffic mix (Park versus through)



Traffic and Travel Patterns

Off-Park Data and Analysis

- Traffic Count Cut-Line Analysis (Before and After US 27 Relocation)
- License Tag Origin/Destination Survey
- Roadside Interview Survey
- Next Steps for Travel Demand Model



Traffic and Travel Patterns

Purpose of Each Effort

Traffic Count Data Collection

- Determine traffic patterns before and after US 27 Relocation.
- Calibrate base year model to simulate existing conditions.

License Tag Origin and Destination Survey

- Determine traffic patterns for Park traffic.

Roadside Interview Survey

- Identify character of trips: trip purpose, trip frequency, auto occupancy, mode, Park visitation, and origin/destination.



Traffic and Travel Patterns

Traffic Count Cut-Line Analysis

- Methodology
- Traffic Counts Before and After U.S. 27 Relocation
- Redirection of Traffic Movements



Traffic and Travel Patterns

License Tag Origin and Destination Survey Results

- Distribution for Non-Park Trips
- Top 4 Tag Sites (based on traffic counts)
- Major Movements



Traffic and Travel Patterns

Roadside Interview Survey Results

- Response Rate and Sample Size
- Full Results Included in Report
 - Park Trips v. Non-Park Trips (by day and intersection approach).
 - Trip Frequency, Auto Occupancy, Trip Purpose.
 - Mode (inside Park and at intersection).
 - Origin and/or Destination (State, City, Zip Code).
 - Park Trip Characteristics (Sites Visited, Trip Duration, Utilization of Auto Tour).



Traffic and Travel Patterns

Roadside Interview Survey Results (cont'd)

- Key Information Presented Today
 - Park v. Non-Park Trips by Intersection
 - Trip Purpose
 - Park Sites Visited
 - Trip Frequency
 - Origin and Destination (by Zip Code)
 - Auto Occupancy



Traffic and Travel Patterns

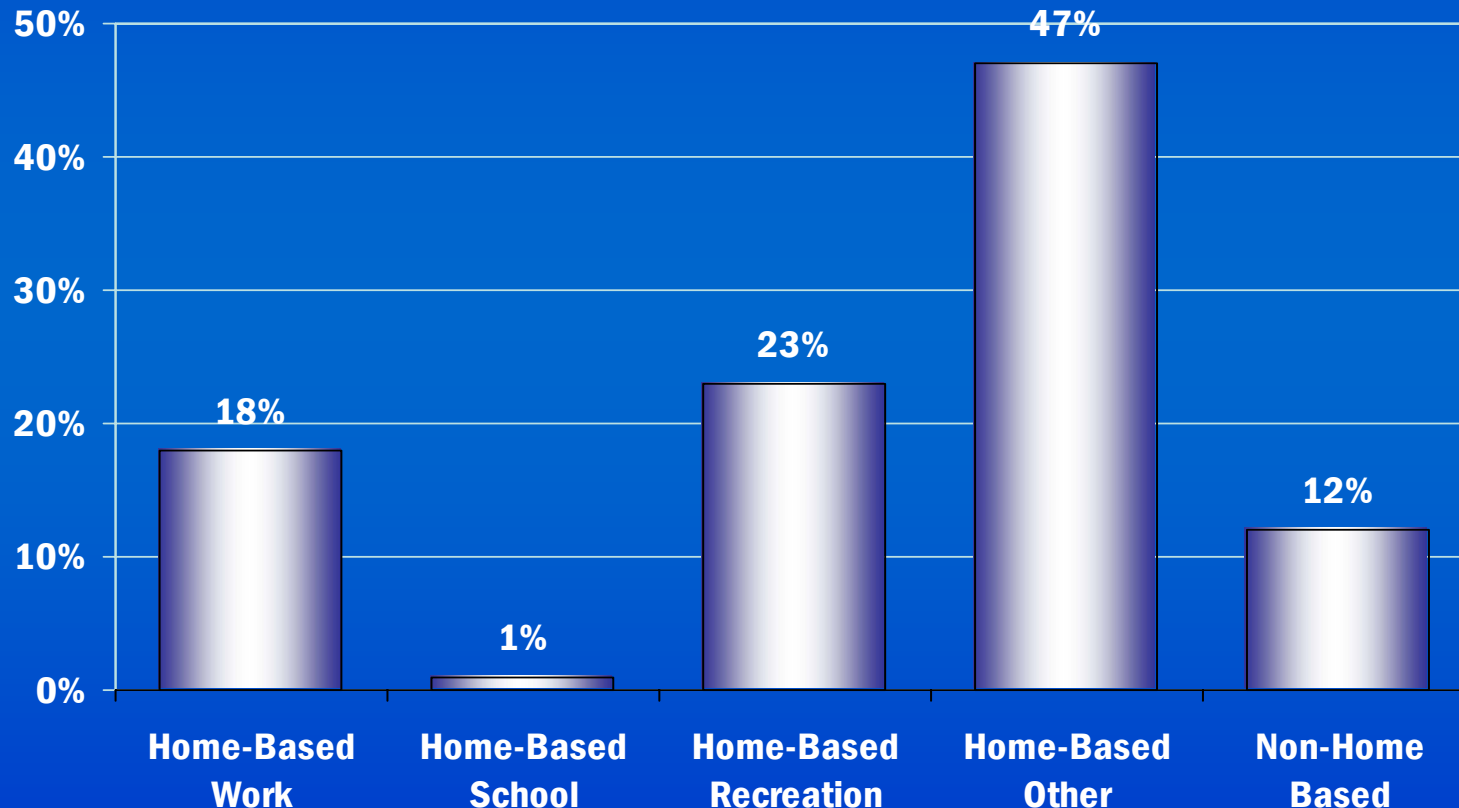
Park vs. Non-Park Trips by Intersection Approach

Approach	<u>Park Trips</u>		<u>Non-Park Trips</u>		<u>Total Participated</u>	
	No.	%	No.	%	No.	%
Northbound	47	27%	129	73%	176	100%
Westbound	9	9%	90	91%	99	100%
Southbound	31	17%	149	83%	180	100%
Eastbound	16	11%	126	89%	142	100%
Total	103	17%	494	83%	597	100%



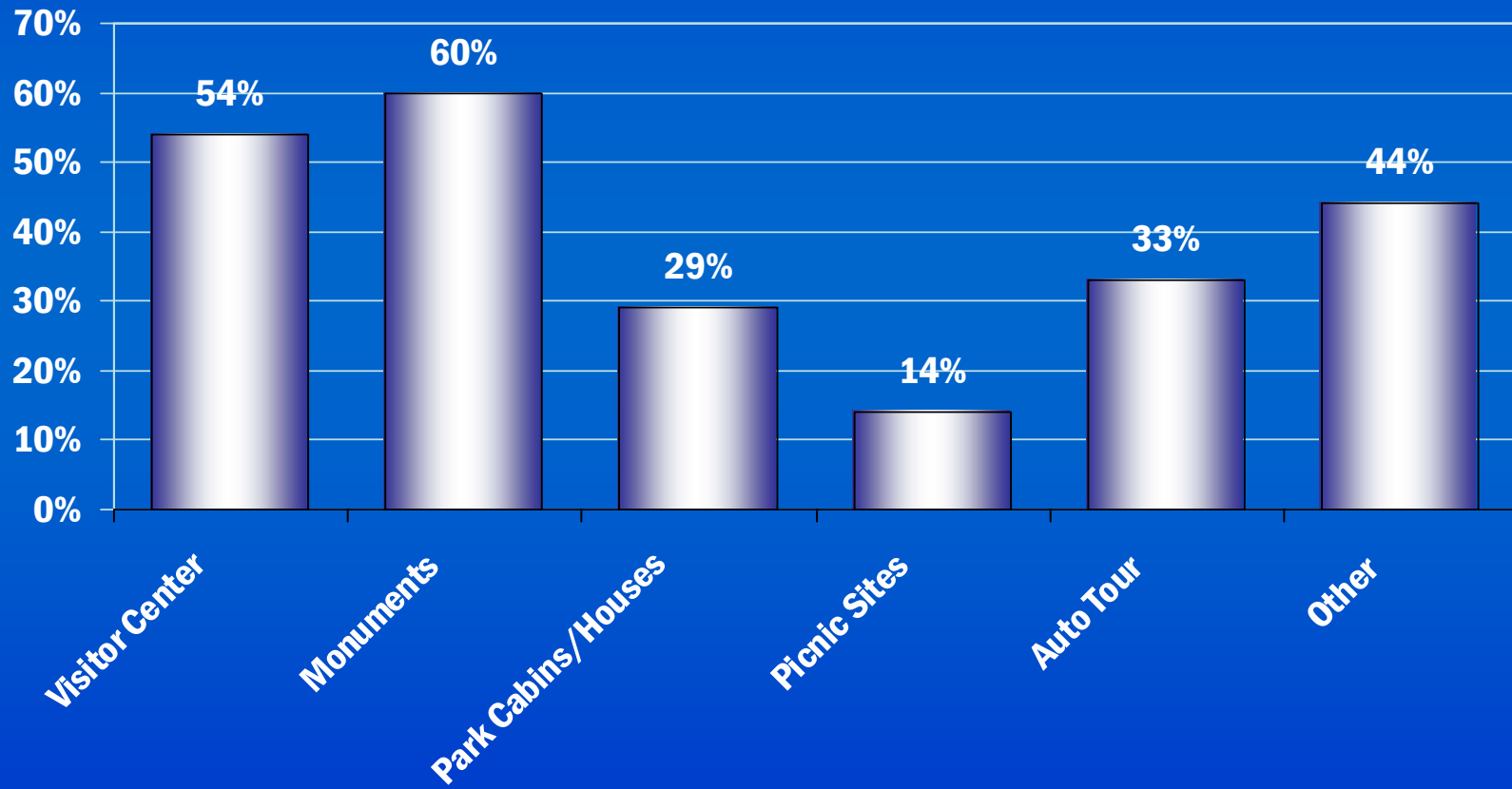
Traffic and Travel Patterns

Trip Purpose



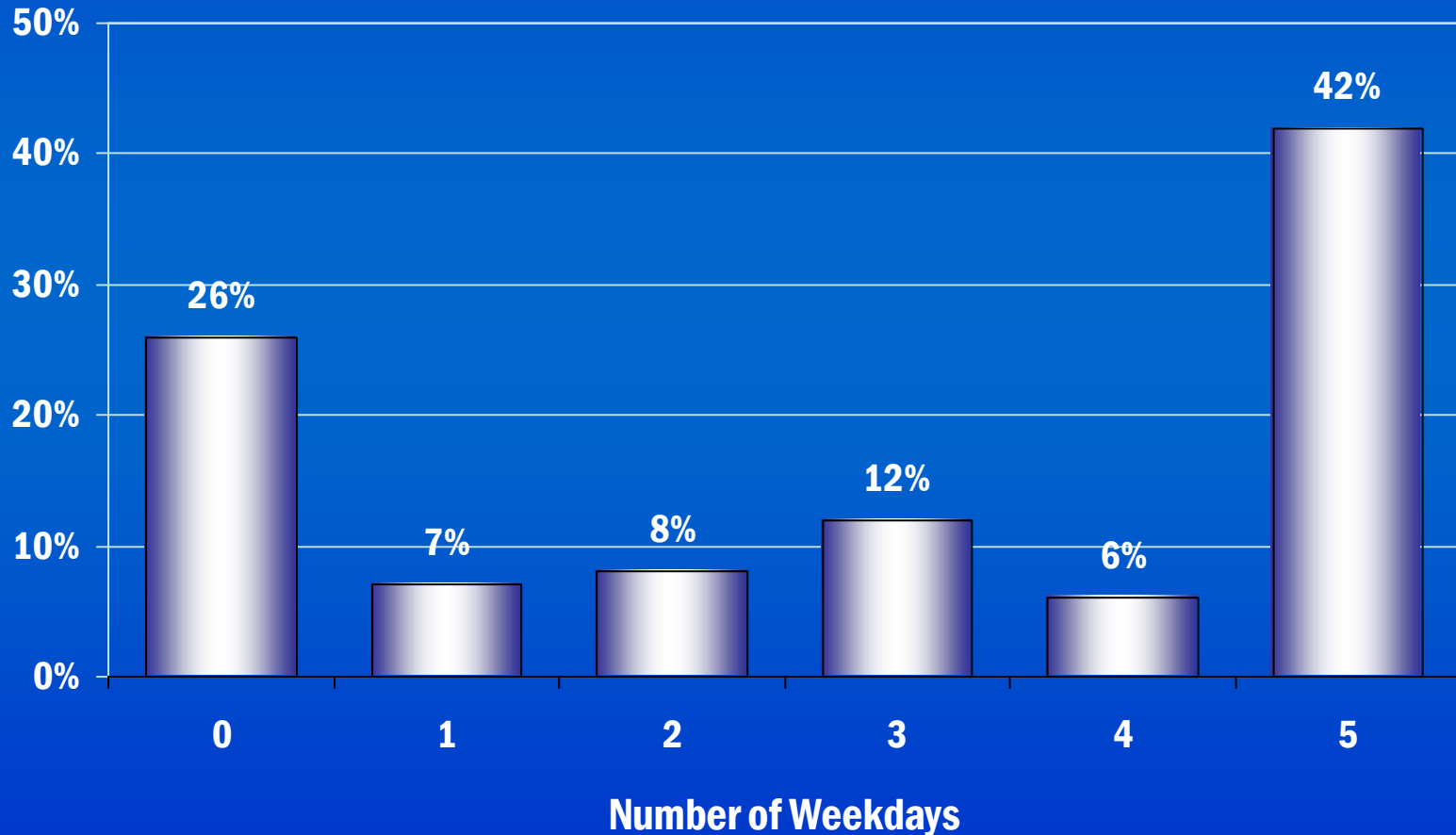
Traffic and Travel Patterns

Park Sites Visited



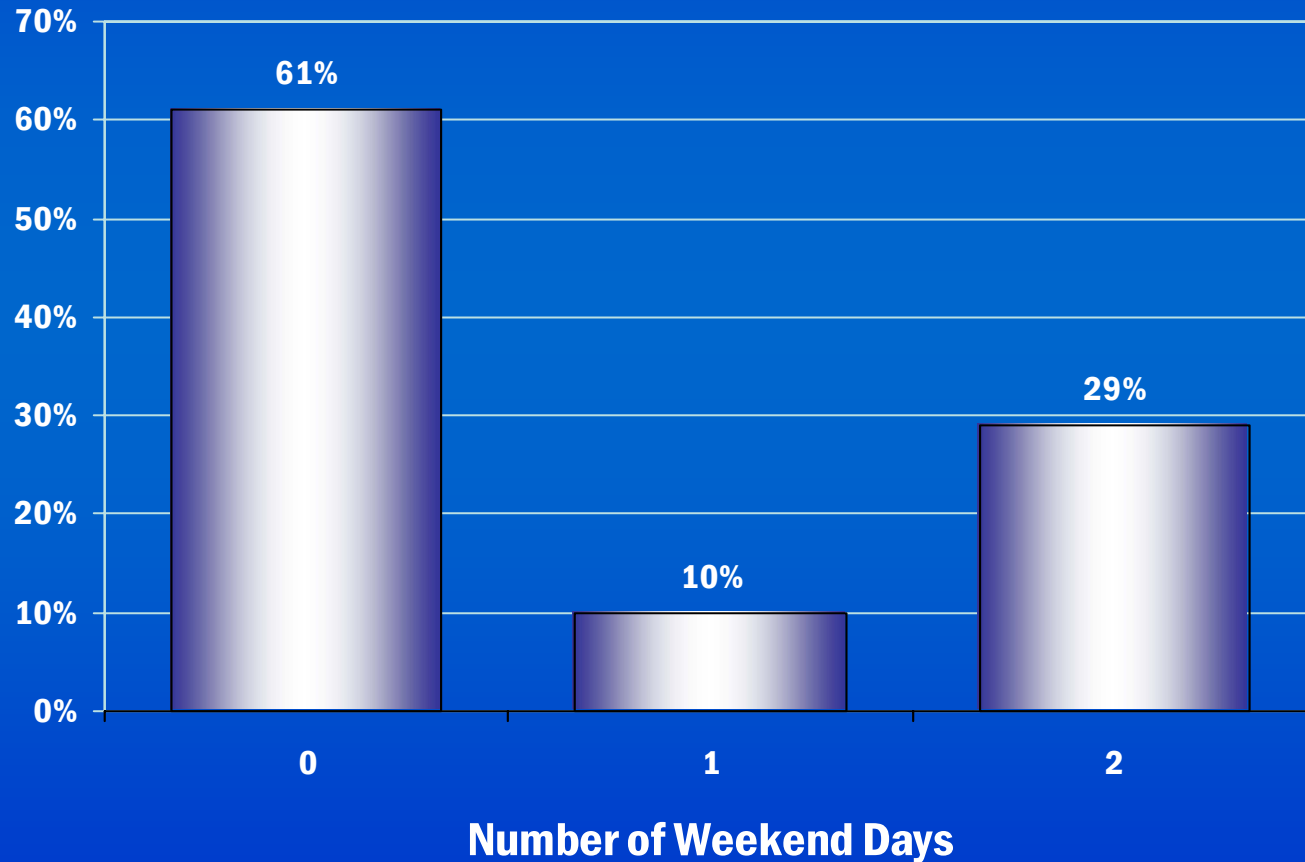
Traffic and Travel Patterns

Trip Frequency – Weekdays



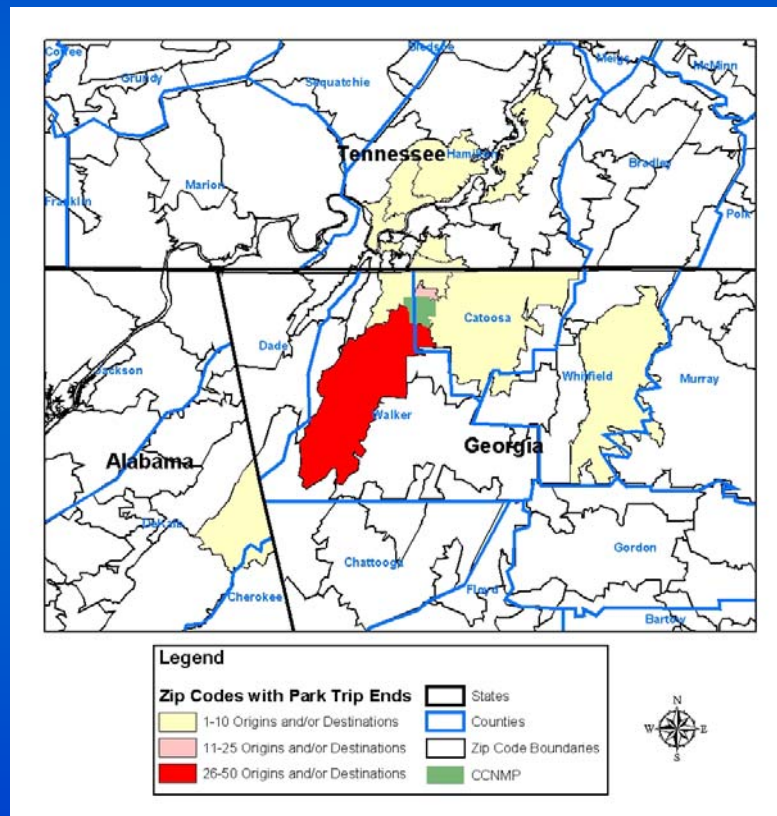
Traffic and Travel Patterns

Trip Frequency - Weekends

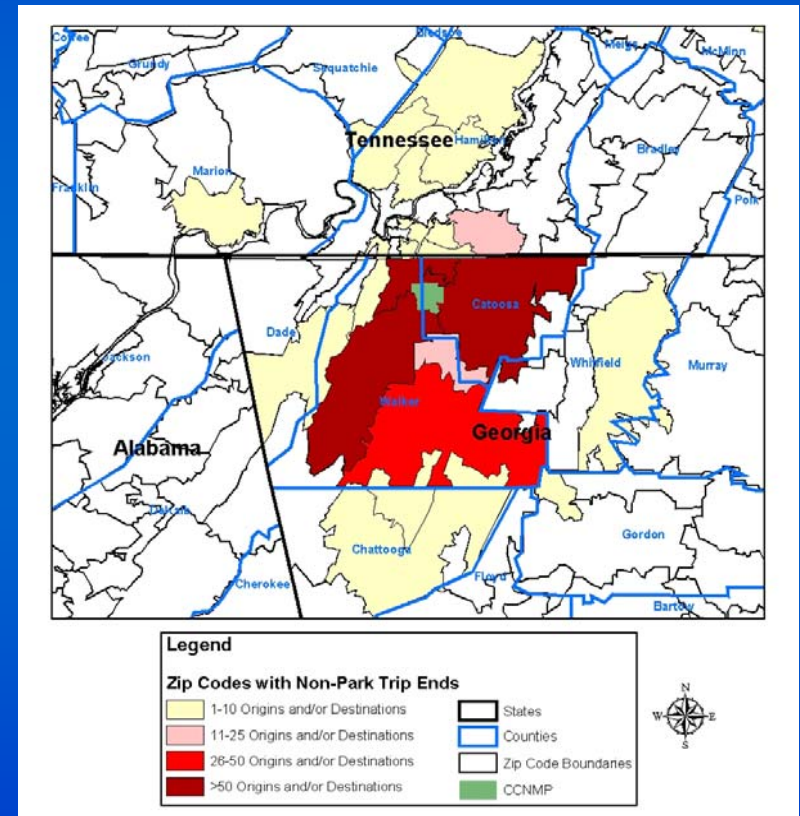


Traffic and Travel Patterns

Origin and Destination of Trips by Zip Code



Zip Codes by Number of Park Trip Ends

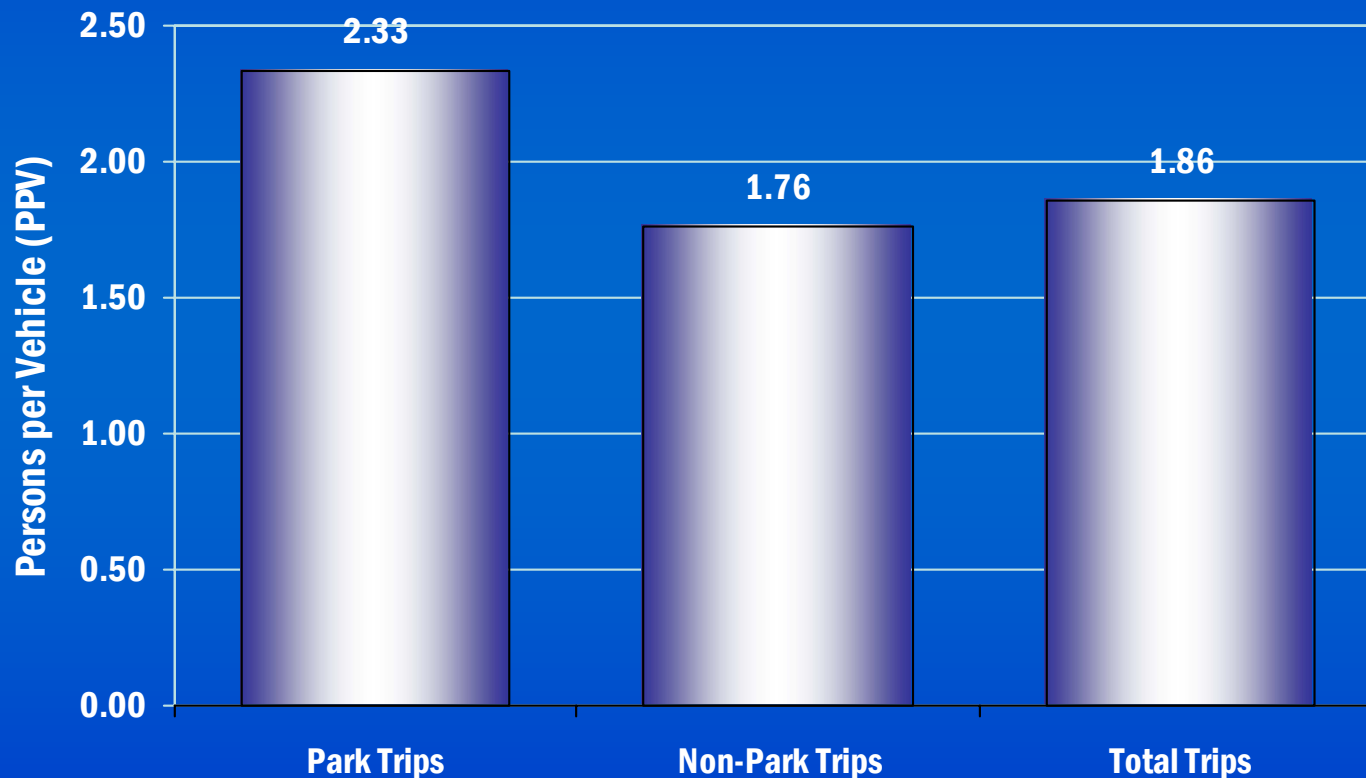


Zip Codes by Number of Non-Park Trip Ends



Traffic and Travel Patterns

Auto Occupancy



Traffic and Travel Patterns

Next Steps for Travel Demand Model

- Update Base Year Model to 2003 Conditions
- Add Cordon Line and Cut Lines
- Add Select Link Analysis and Compare/Incorporate Survey Results
- Adjust model parameters as needed



Cultural and Natural Resources

Historical Significance

- Site of the 1863 Battle of Chickamauga
- Individuals of national importance



- Nation's first National Military Park (1890)
 - Commemoration and military study
 - Scene of national reconciliation
 - Art, architecture, and landscape architecture



Cultural and Natural Resources

Park Circulation

- Historic, Cultural, Natural Resources
 - Roads (Battle-era & Commemorative-era)
 - Commemorative features
 - Field and Forest Patterns
 - Historic Structures
 - Archeological Features
 - Creeks/Streams
 - Limestone Glades
- Visual resources, character, experiential qualities
- Pull-off areas
- Interpretive tour route
- Interpretive signs/stations



Cultural and Natural Resources

Gateway Corridors

- Primary
- Secondary
- Land Use (existing and future)



- Physical and visual characteristics
- Historic, Cultural, Natural Resources



Cultural and Natural Resources

Visitor Experience & Expectations

- Resources/conditions critical to visitor understanding of battle/ commemoration
- Resources/conditions detracting from visitor understanding of battle/ commemoration
- The ‘ ideal’ positive visitor experience



Cultural and Natural Resources

Resource Sensitivity Criteria

- Interpretive value/potential
- Tour route
- Association of historic period
- Historic integrity
- Access to important historic sites/features
- Contribution to positive visitor experience



Transportation Implications

Context Sensitive Treatment - Concepts

- **Functional Classification of Transportation Facilities**
 - Interstate/Limited Access
 - Arterials – Major and Minor
 - Collectors – Major and Minor
 - Local Roads
- **Performance expectations differ depending on type of facility**



Transportation Implications

Context Sensitive Treatment - Concepts

- Level of Service
 - Graded A (least congested) through F (gridlock)
 - Applied to both roadway segments and intersections
 - Criteria generally include:
 - Volume
 - Speed
 - Delay
 - Gap between vehicles



Transportation Implications

Context Sensitive Treatment - Concepts

- Functional classification and LOS move greatest number of vehicles in most efficient manner
- Context sensitive treatment may require modifications
 - Scenic
 - Historic
 - Sensitive land uses



Transportation Implications

Context Sensitive Treatment - Concepts

- Class II two-lane highways
 - Scenic and/or recreational routes
 - Motorists do not expect to travel at high speeds
 - *“Enjoyment of the vista and environment experienced without traffic interruption or delay. Roadway safety is important, but high-speed operation is neither expected nor desired.”*
(Highway Capacity Manual).



Transportation Implications

Context Sensitive Treatment - Concepts

- Class II, two-lane highways LOS

Grade (LOS)	Speed	Pct time delayed in platoons	Max Flow Pass cars/hr (both ways) (HCM)	Avg. Annual Daily Traffic (Colonial NHP)
A	Around 50	Less than 40%	490	2,400
B	Below 50	Less than 55%	780	4,800
C	Below 45	Less than 70%	1,190	7,900
D	Below 40	Less than 85%	1,830	13,500
E	Below 40	More than 85%	3,200	22,900
F	Gridlock			



Transportation Implications

Context Sensitive Treatment - Concepts

- **Factors that may reduce capacity/ LOS**
 - Highway class
 - Lane and shoulder width
 - Access-point density
 - Specific grade or terrain
 - Percent no-passing
 - Length of analysis period
 - Peak hour flow
 - Directional split
 - Heavy vehicle percentages
 - Recreational vehicle (RV) percentages



Transportation Implications

Context Sensitive Treatment - Concepts

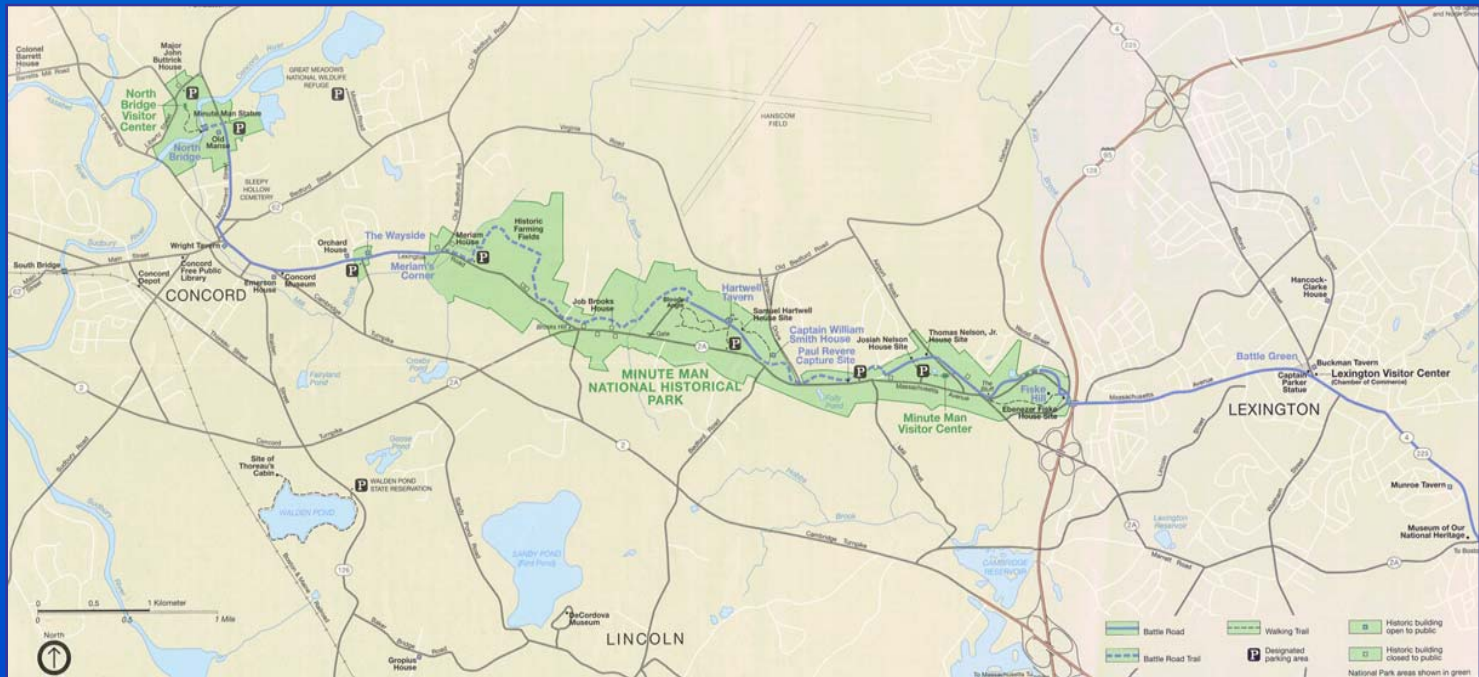
- **Methods of addressing roadway performance in Park environment**
 - Modify criteria
 - Add new and/or different criteria
 - Accept different standard



Transportation Implications

Alternative Transportation Options

- Alternate roads or paths to serve slow traffic/alternate modes



Minuteman National Historic Park recreated non-motorized “Battle Road” parallel to existing State highway



Transportation Implications

Alternative Transportation Options

- One-way roads to improve parking and encourage alternate modes and mitigate resource damage



Gettysburg NMP has seen reduced resource damage and increase in bicycle touring



Transportation Implications

Alternative Transportation Options

- Public transportation for reducing number of vehicles



Transportation Implications

Safety

- Use conflicts
 - Sightseeing and through traffic
 - Tailgating
 - Speed differential
 - Motorized and non-motorized traffic
- Intersection alignment and sight distances
- Deer



Next Steps

- Transportation model refinement and projections
- Newsletter 2 and Website Update (issues and needs identification and preliminary findings of transportation system evaluation)
- Air quality analysis
- Identification of potential alternatives
- SPP and public meetings – obtain input on alternatives, impacts and mitigation

